

Trend Monitoring Update

NCDE SUBCOMMITTEE MEETING
FALL 2024



TOPICS

- 2024 trend & mortality monitoring
- 20-year anniversary retrospective
- Outliers and *May Be Present*
- GYE genetic augmentation effort

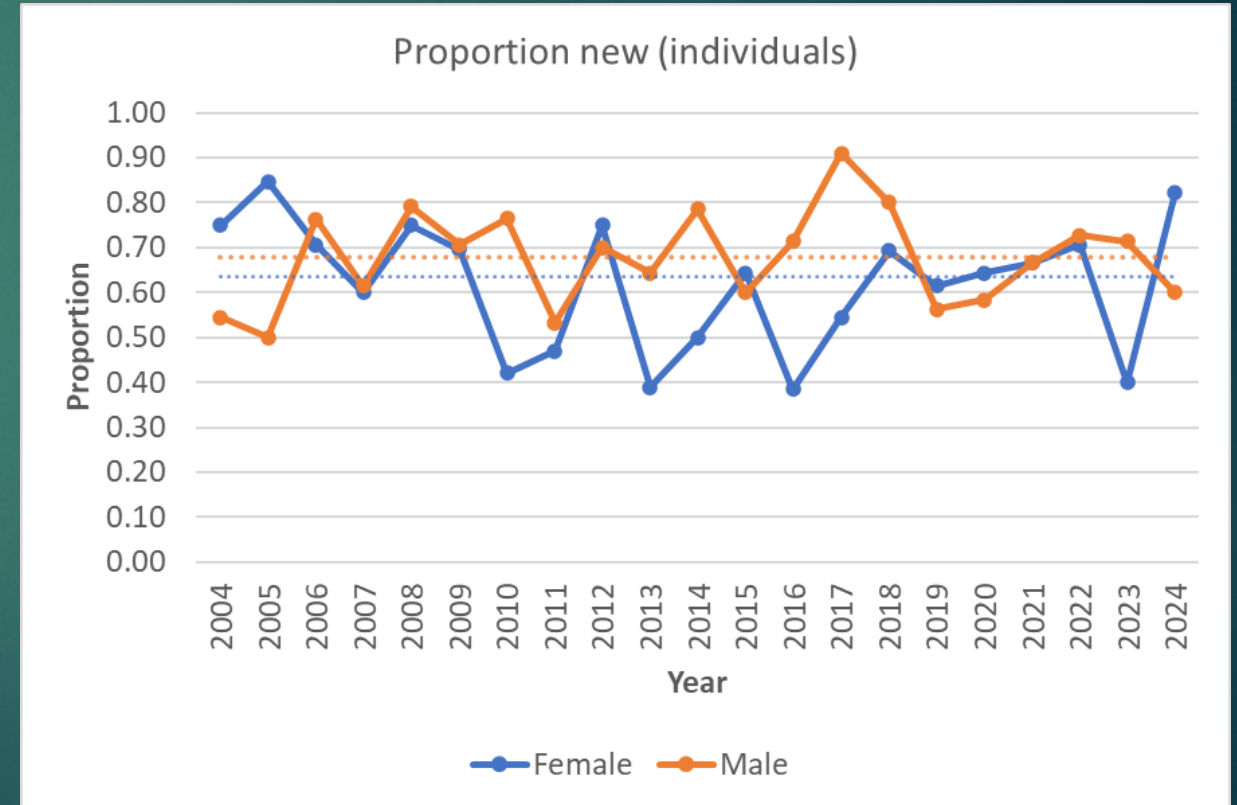
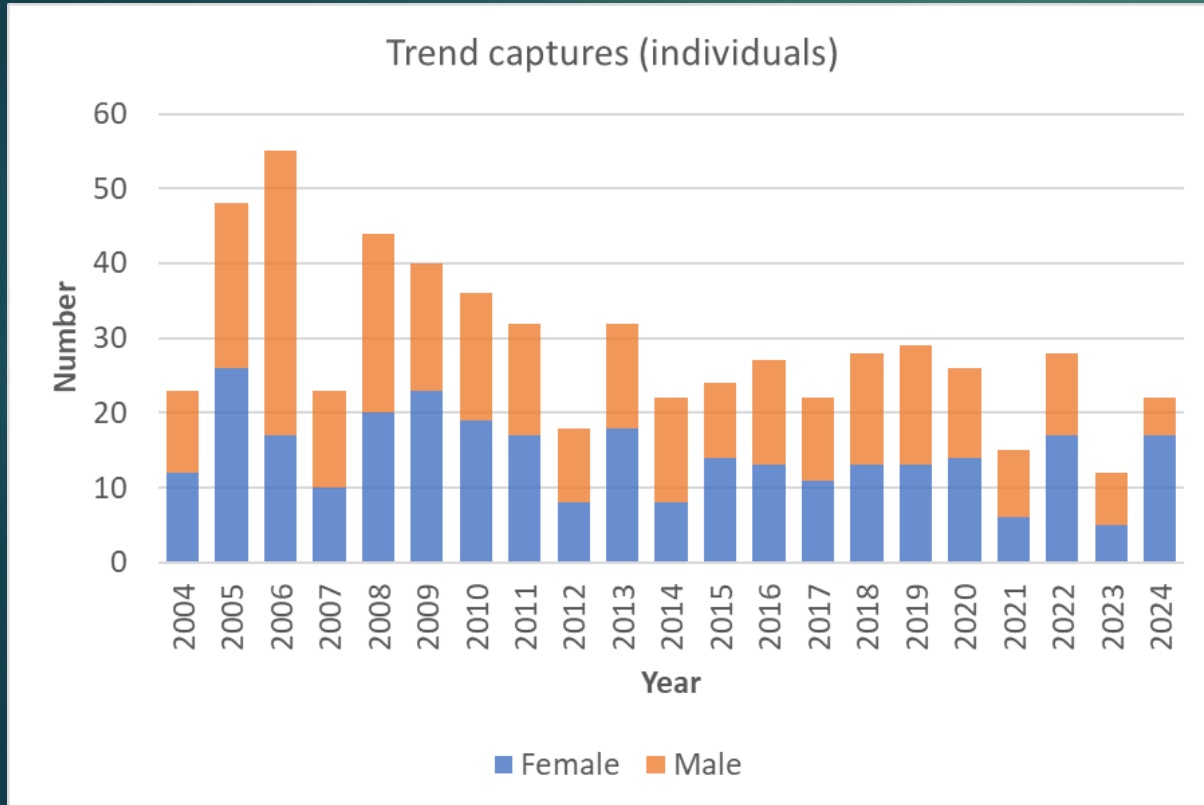
Trend monitoring

CAPTURES

2024

Female: 17 captured, 14 (82%) new individuals

Male: 6 captured, 3 (60%) new individuals



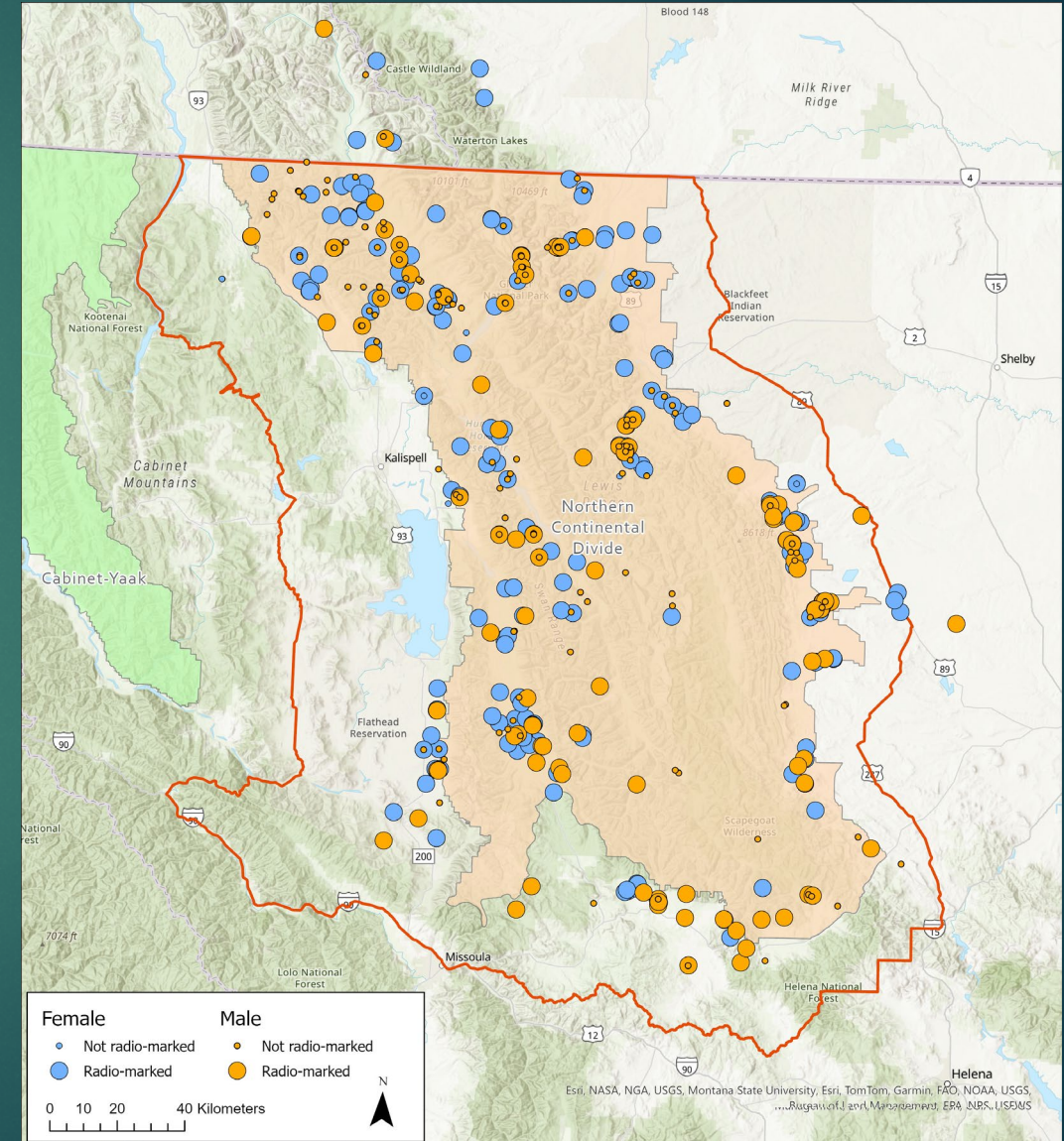
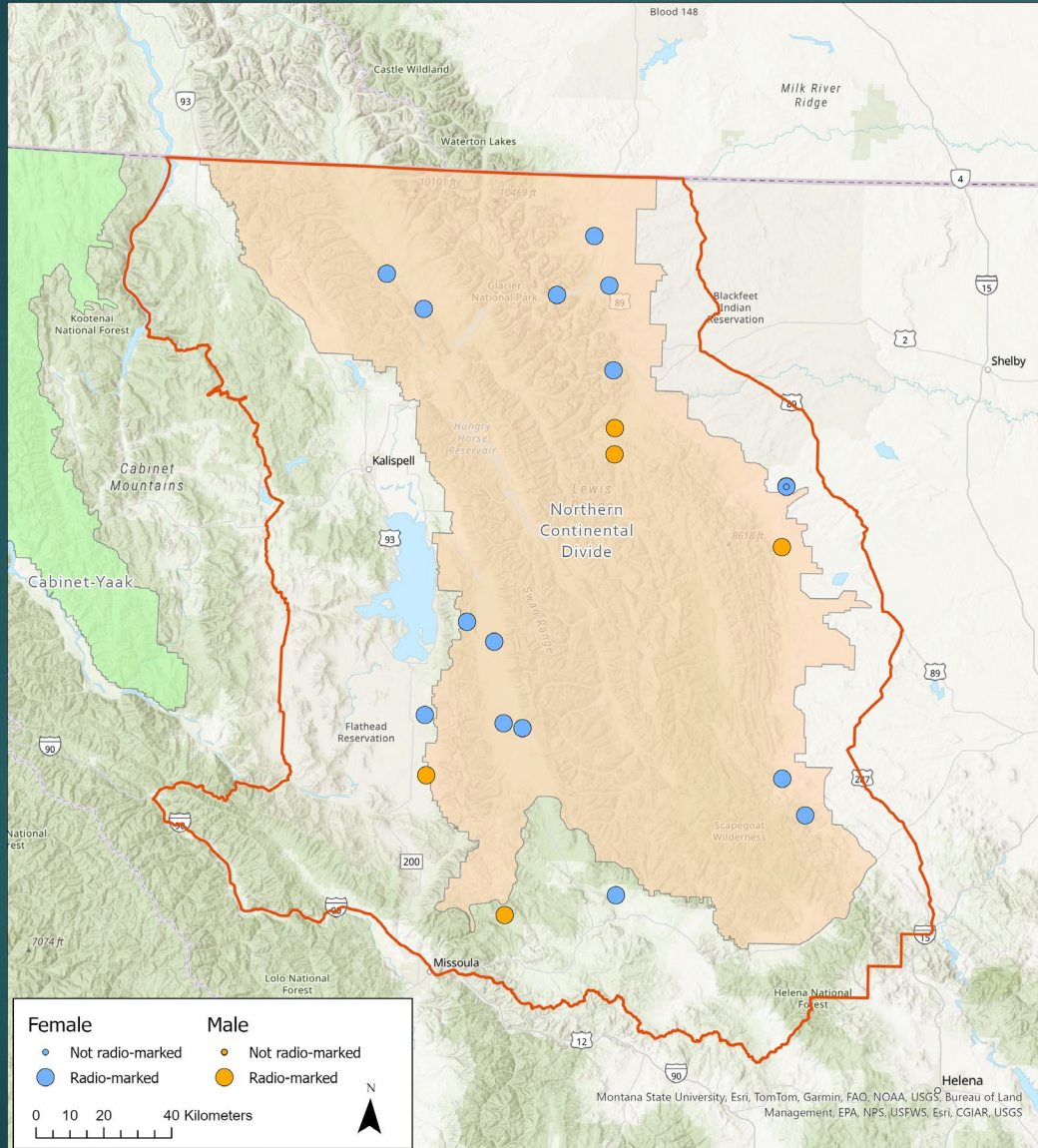
*Preliminary data, do not cite

Trend monitoring

CAPTURES

2024

2004 - 2024



*Preliminary data,
do not cite

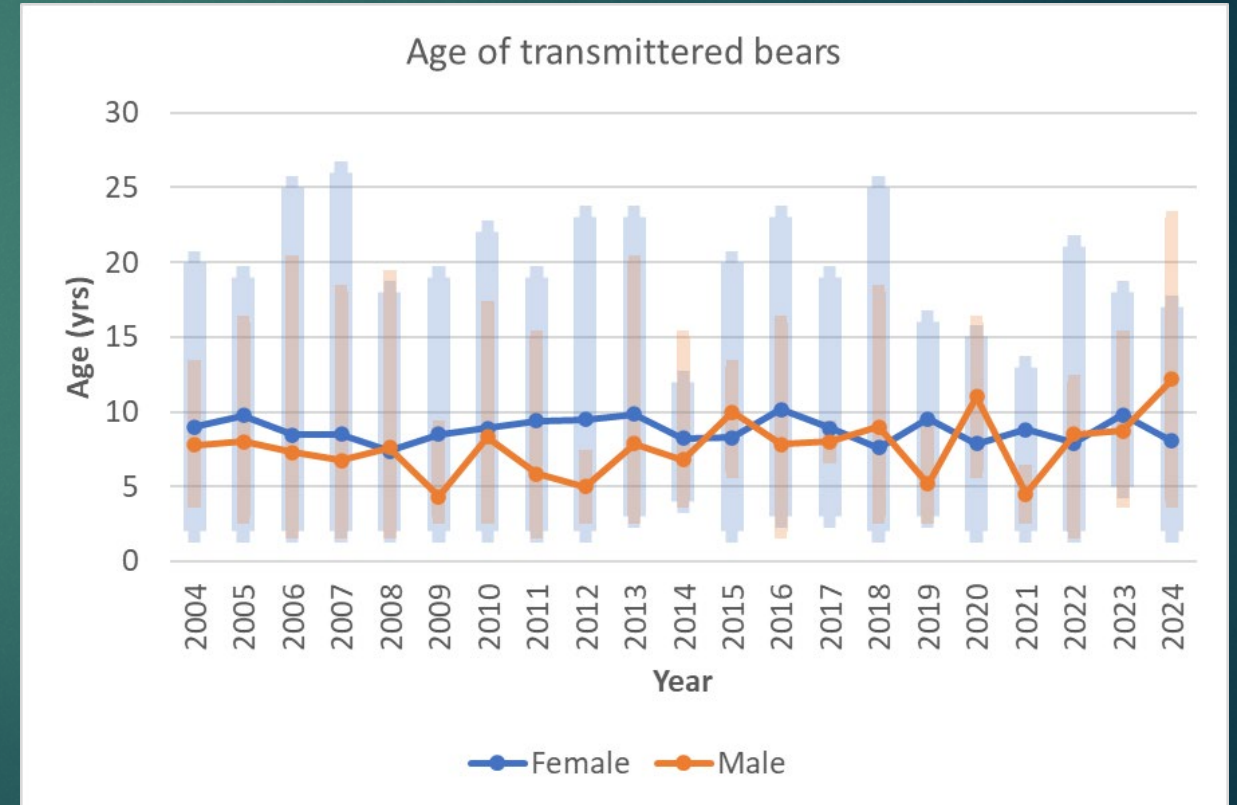
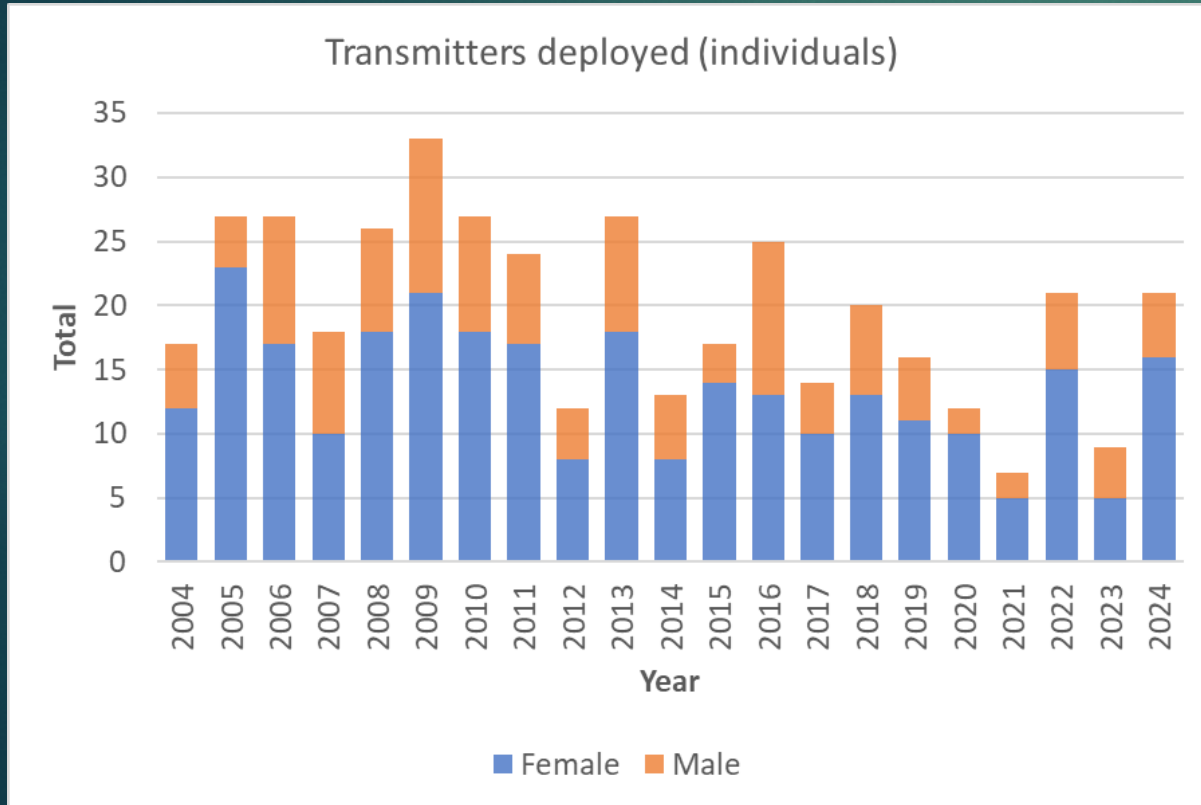
Trend monitoring

RADIO-TRANSMITTERS DEPLOYED

2024

Female: 16 new radio-collars deployed

Male: 5 new radio-collars deployed



*Preliminary data, do not cite

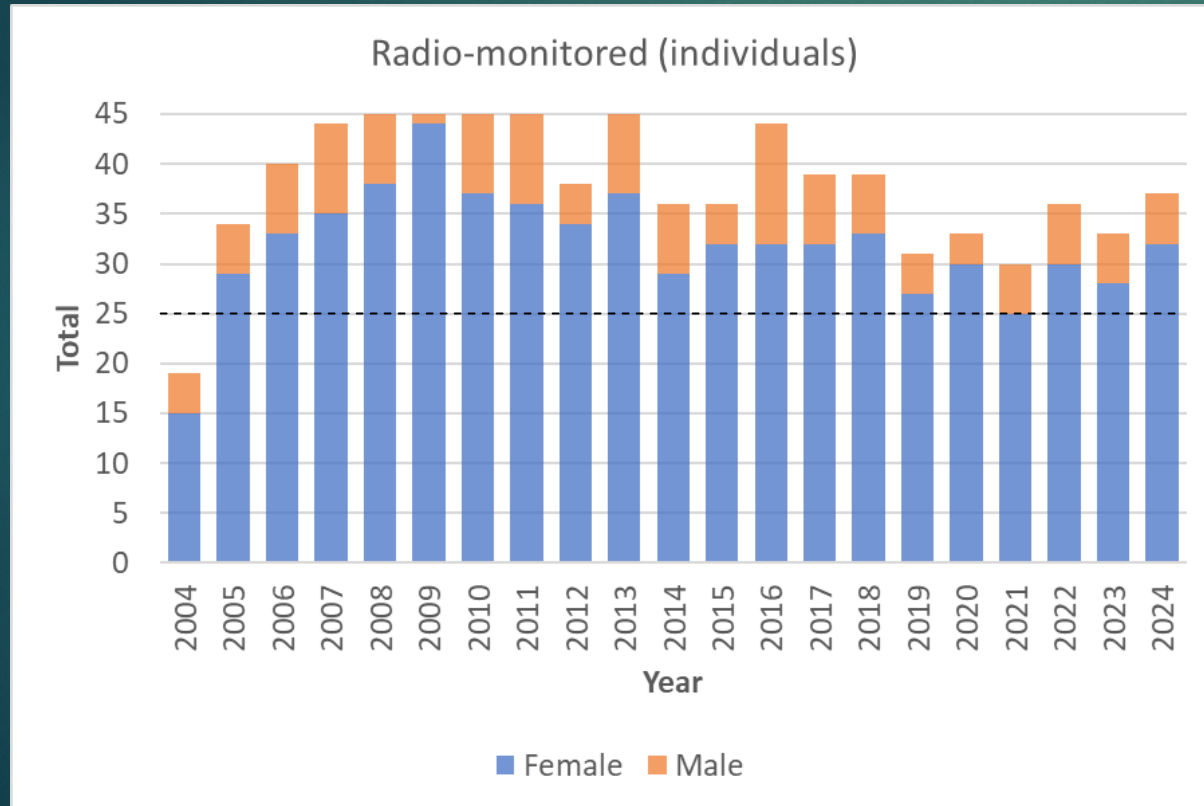
Trend monitoring

TOTAL BEARS MONITORED

2024

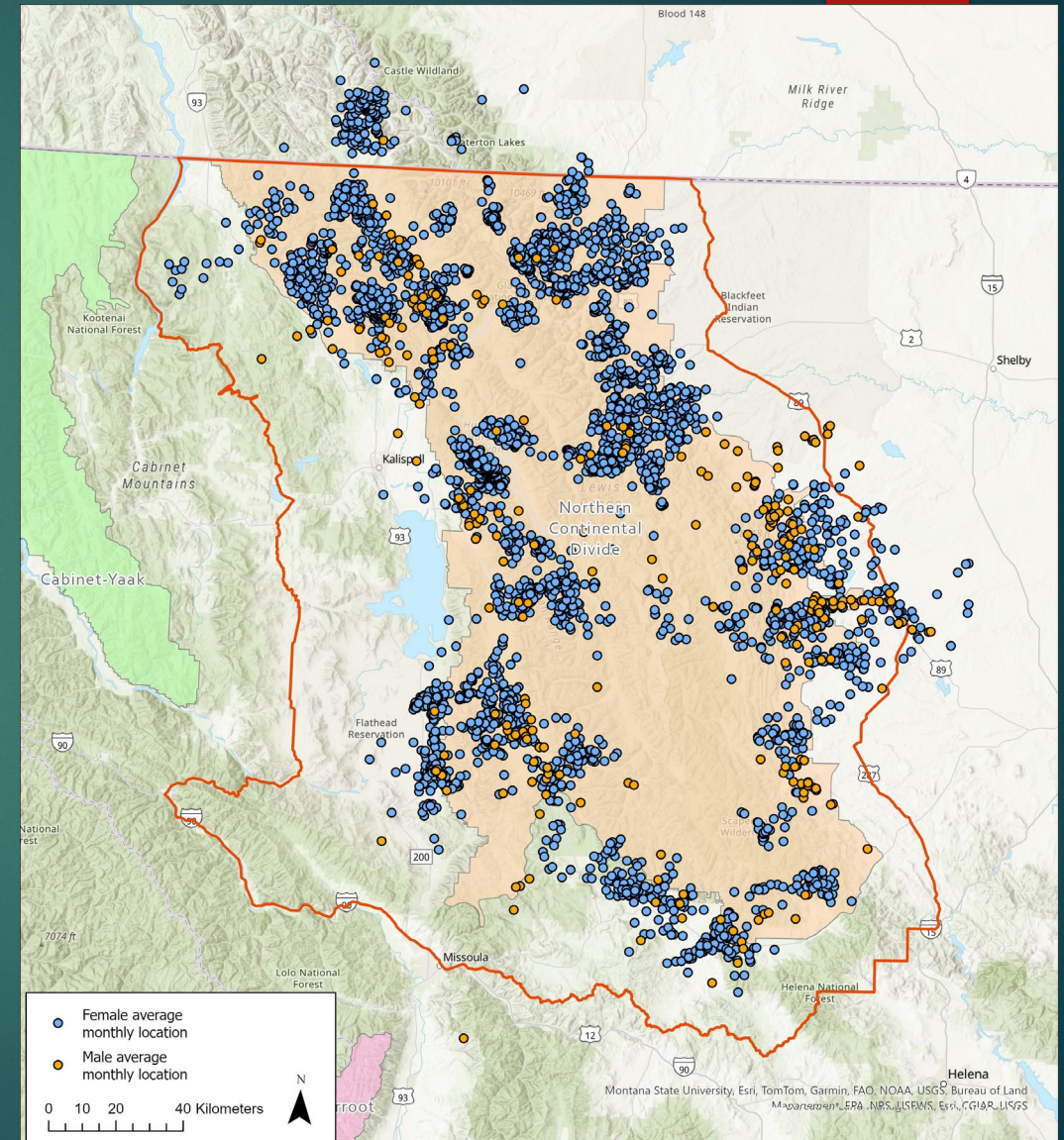
Female: 32 radio-monitored

Male: 5 radio-monitored



Mean Monthly Locations

2004 - 2024



*Preliminary data, do not cite

Trend monitoring

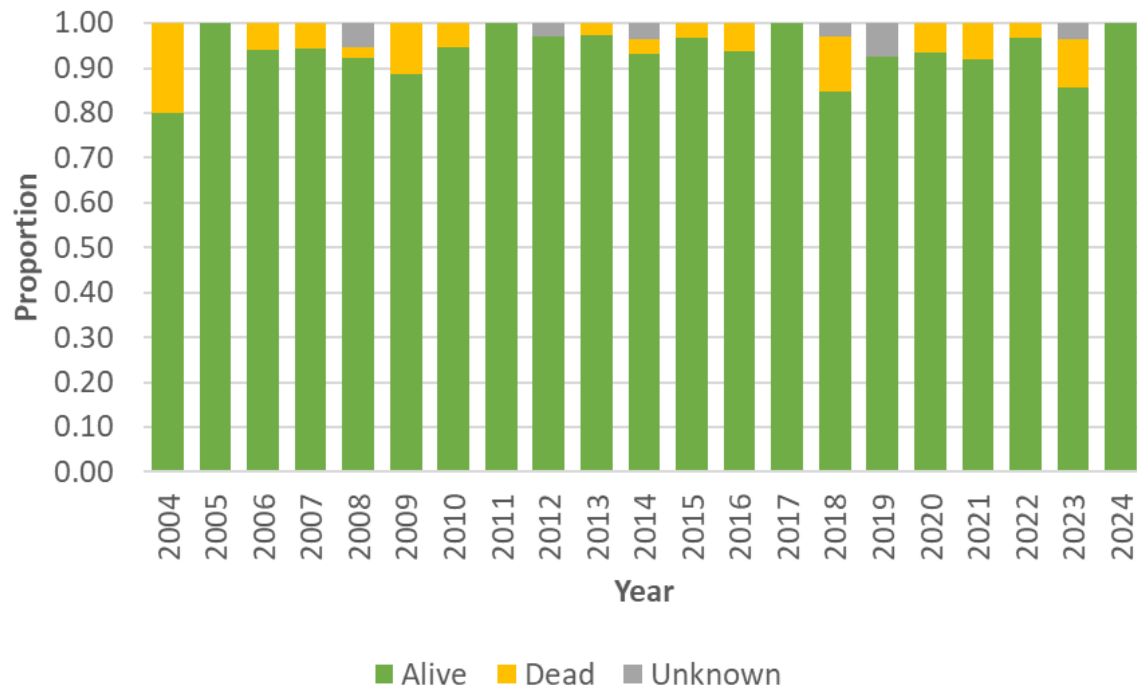
FATES OF MONITORED BEARS

2024

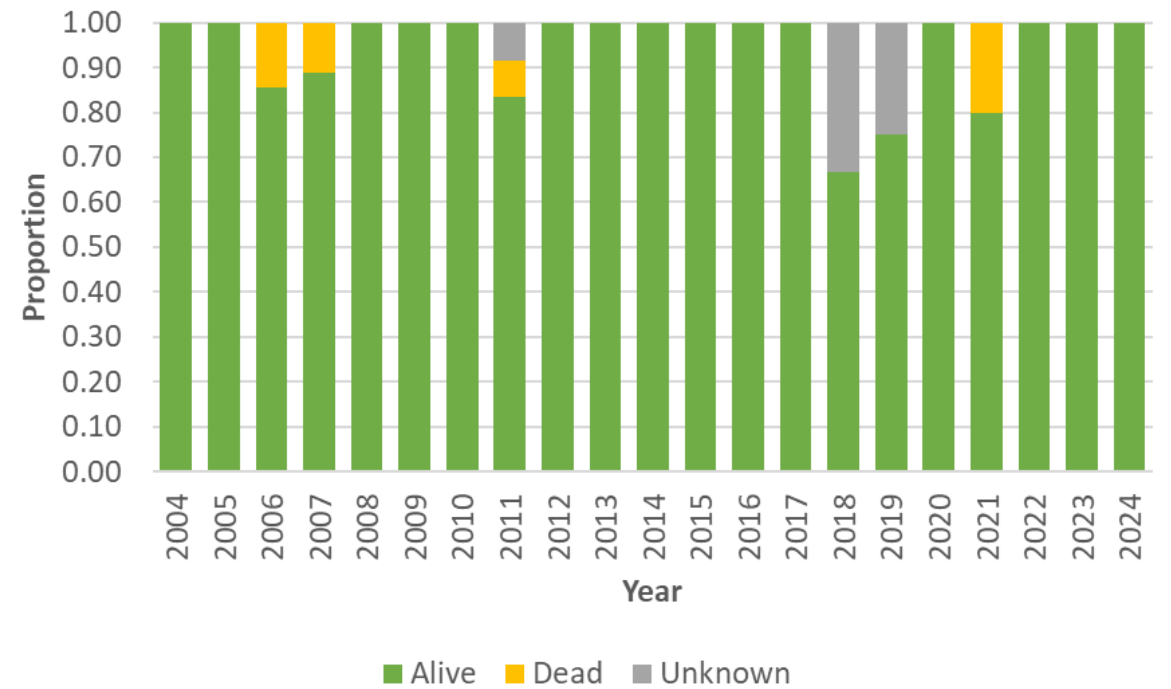
Female: 32 radio-monitored, all alive

Male: 5 radio-monitored, all alive

Proportion by fate (females)



Proportion by fate (males)



*Preliminary data, do not cite

Trend monitoring

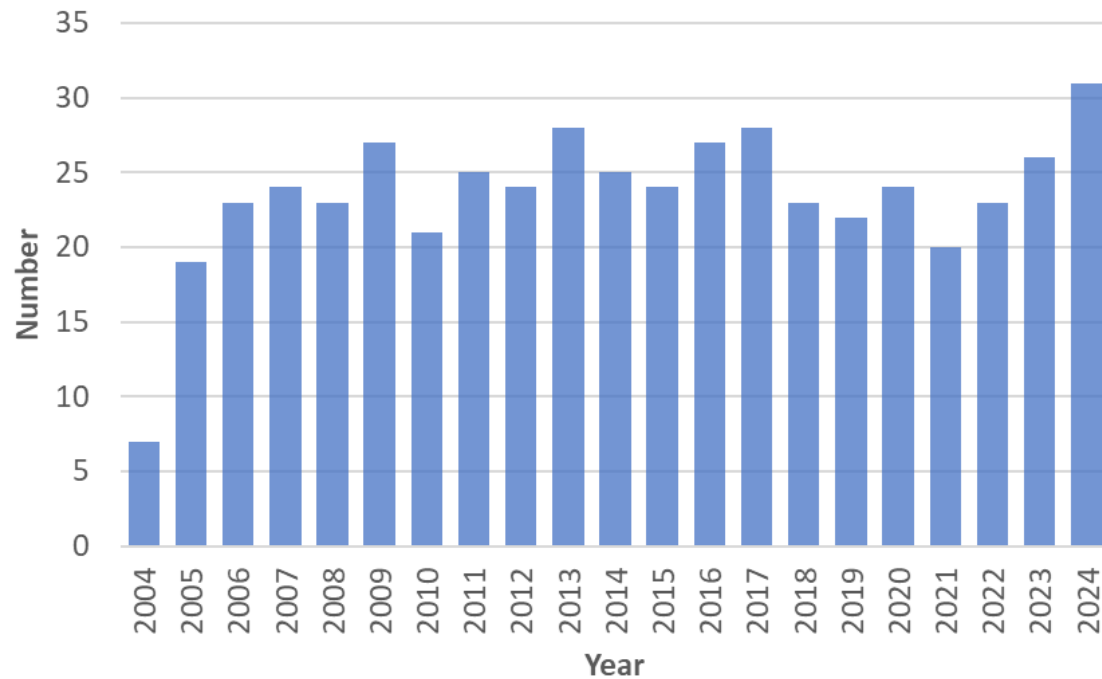
REPRODUCTIVE STATUS OF MONITORED ADULT FEMALES

2024

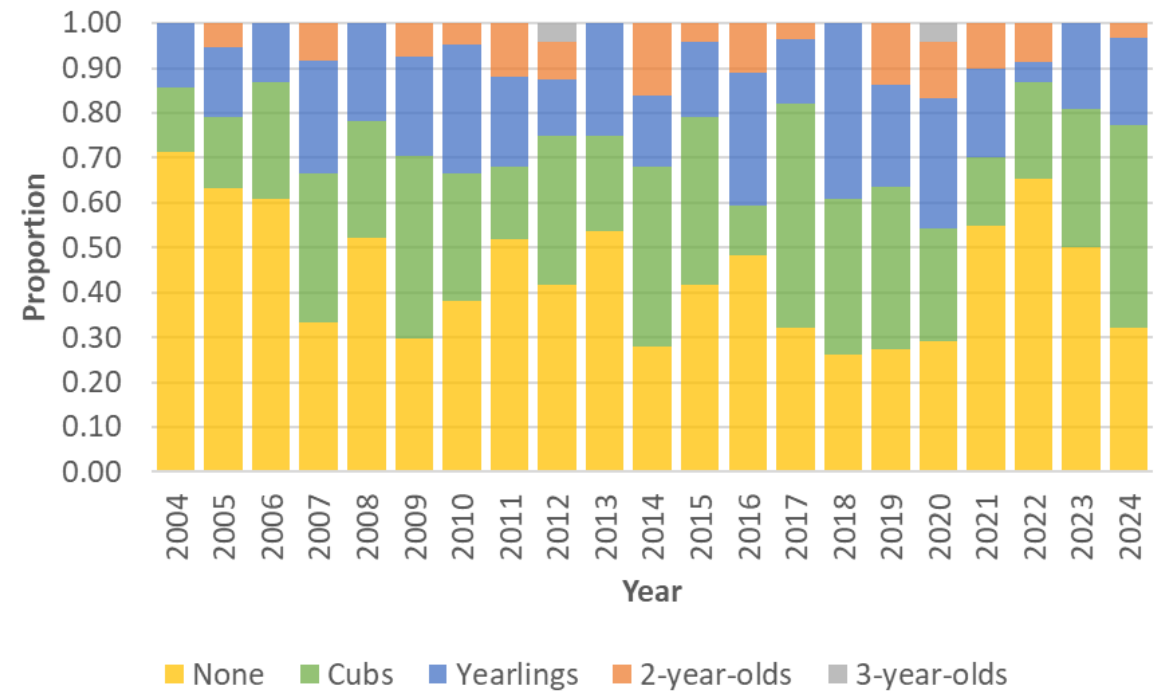
31 females observed (April 18 to October 30)

32% with none, 45% with cubs, 19% with yearlings, 3% with 2-year-olds

Adult females observed for status



Proportion by reproductive status



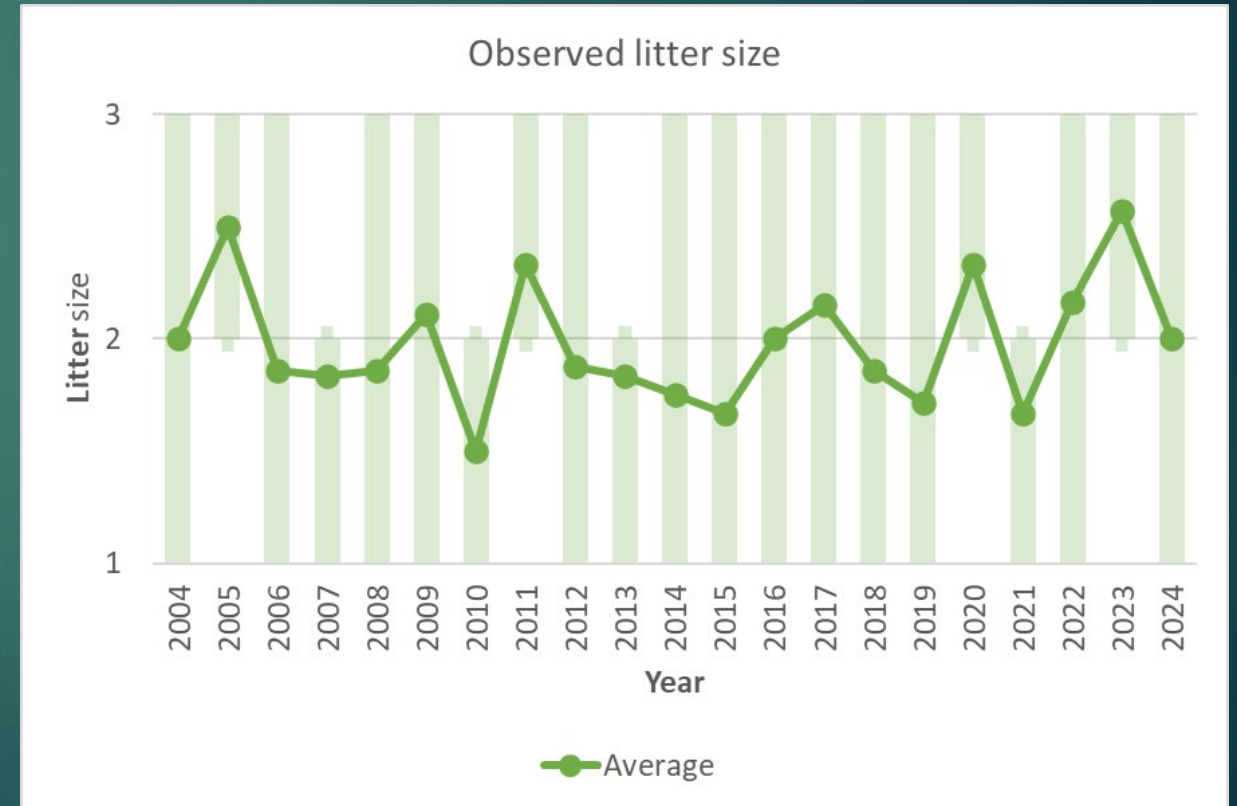
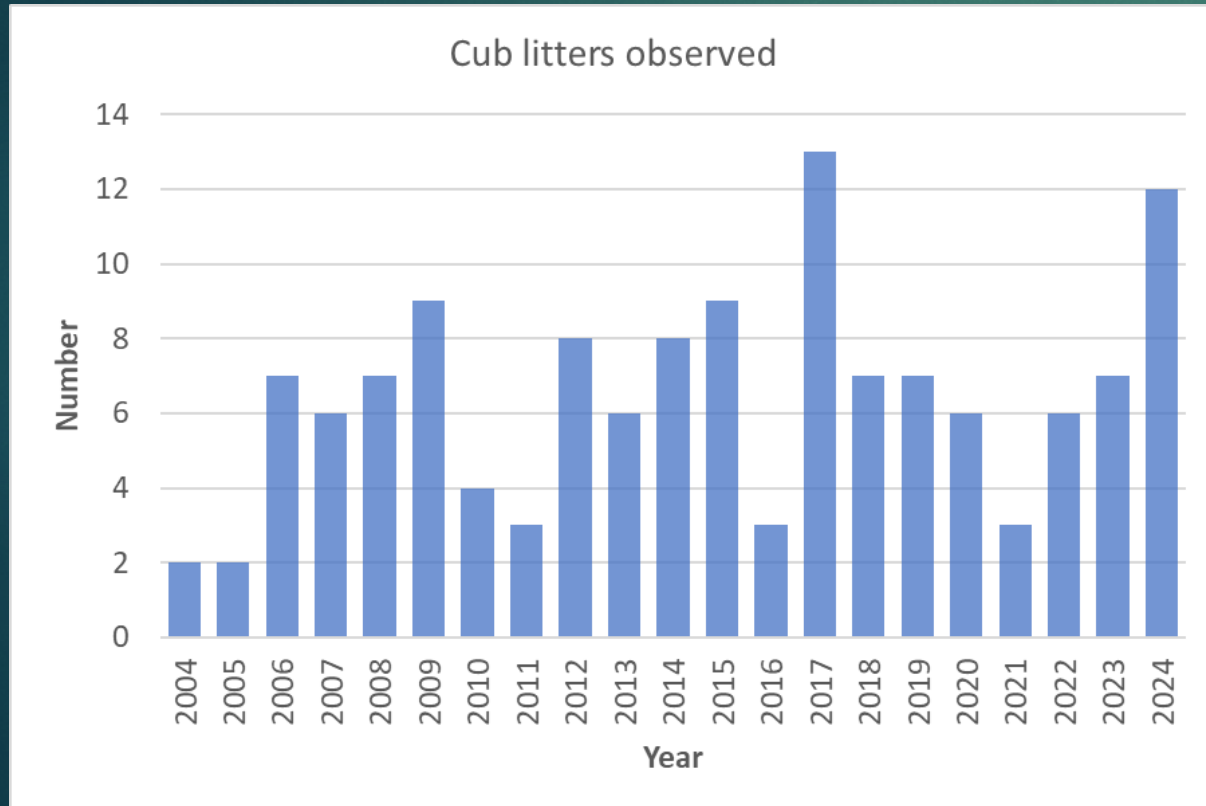
*Preliminary data, do not cite

Trend monitoring

CUB LITTER SIZE FOR MONITORED ADULT FEMALES

2024

12 cub litters observed (June 2 to September 12): 1 single, 10 twins, 3 triplets, mean = 2.0



*Preliminary data, do not cite

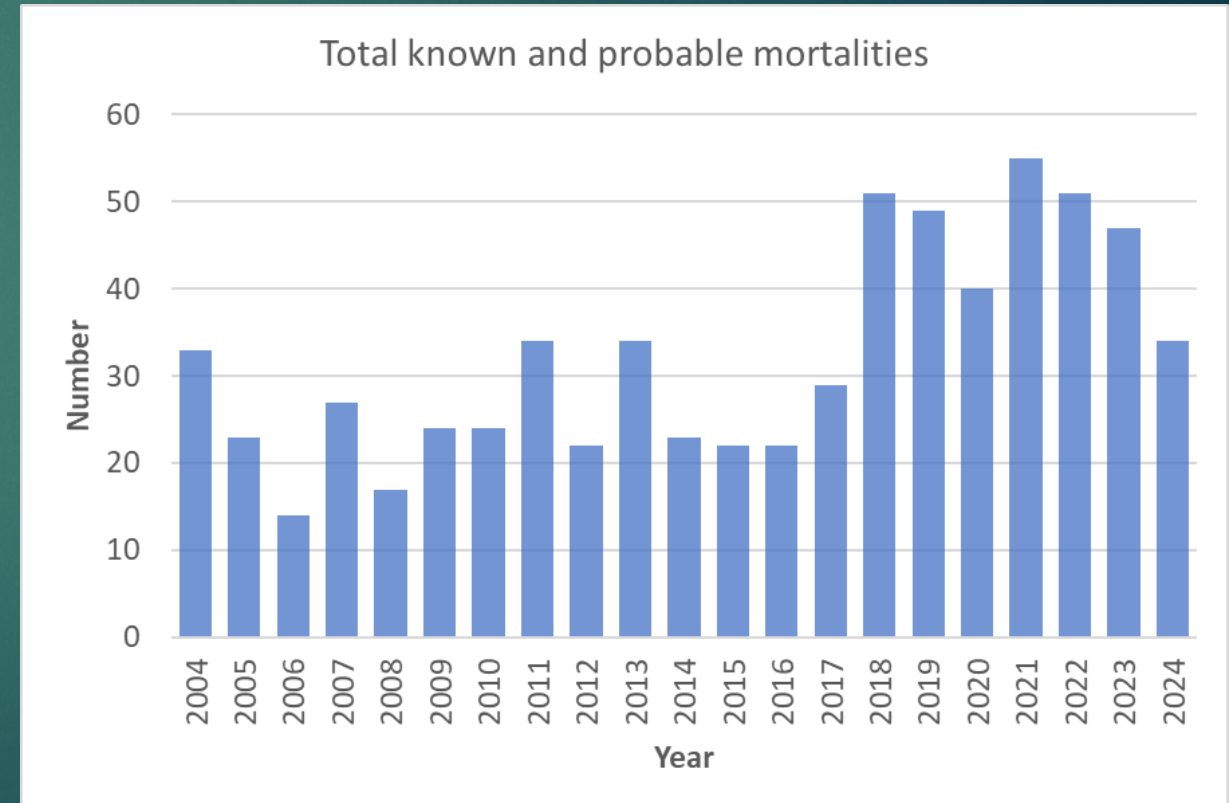
Mortality monitoring

KNOWN AND PROBABLE MORTALITIES

2024

34 total mortalities

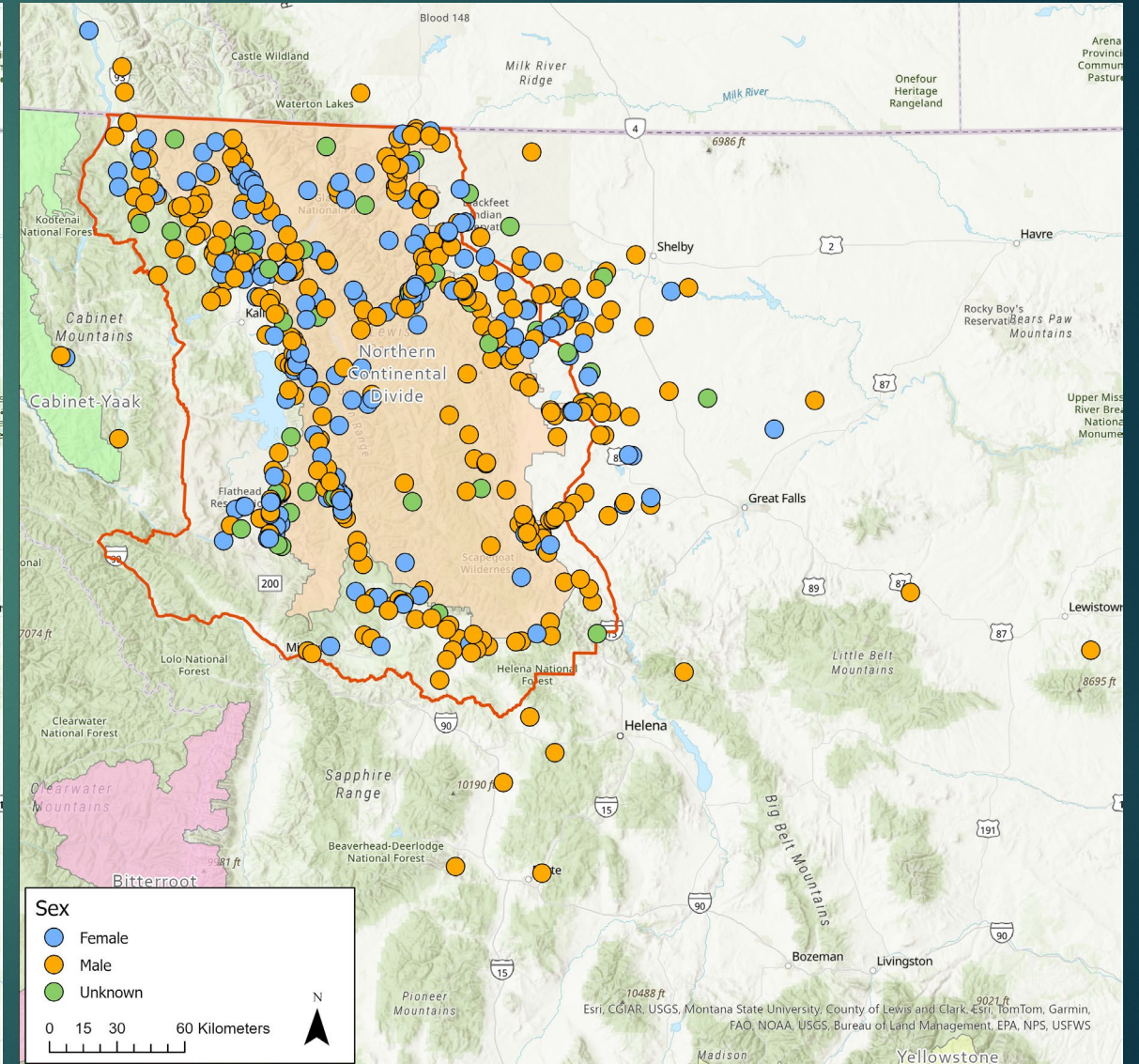
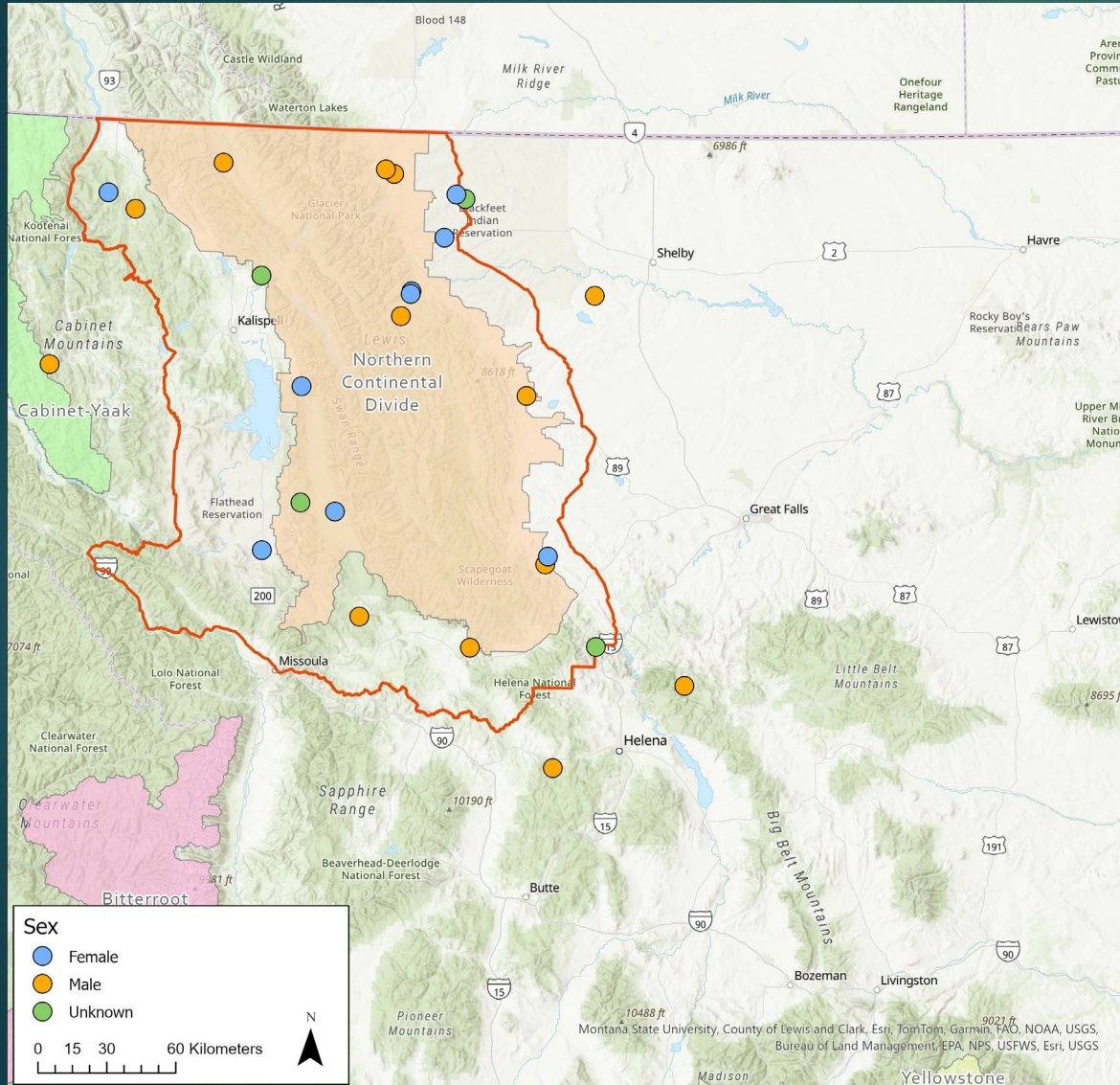
	Ageclass	F	M	U	Total
Inside DMA	Dependent	2	0	3	5
	Independent	10	10	1	21
	Total	12	10	4	26
Outside DMA	Dependent	0	0	1	1
	Independent	2	4	1	7
	Total	2	4	2	8



*Preliminary data, do not cite

Mortality monitoring

KNOWN AND PROBABLE MORTALITIES



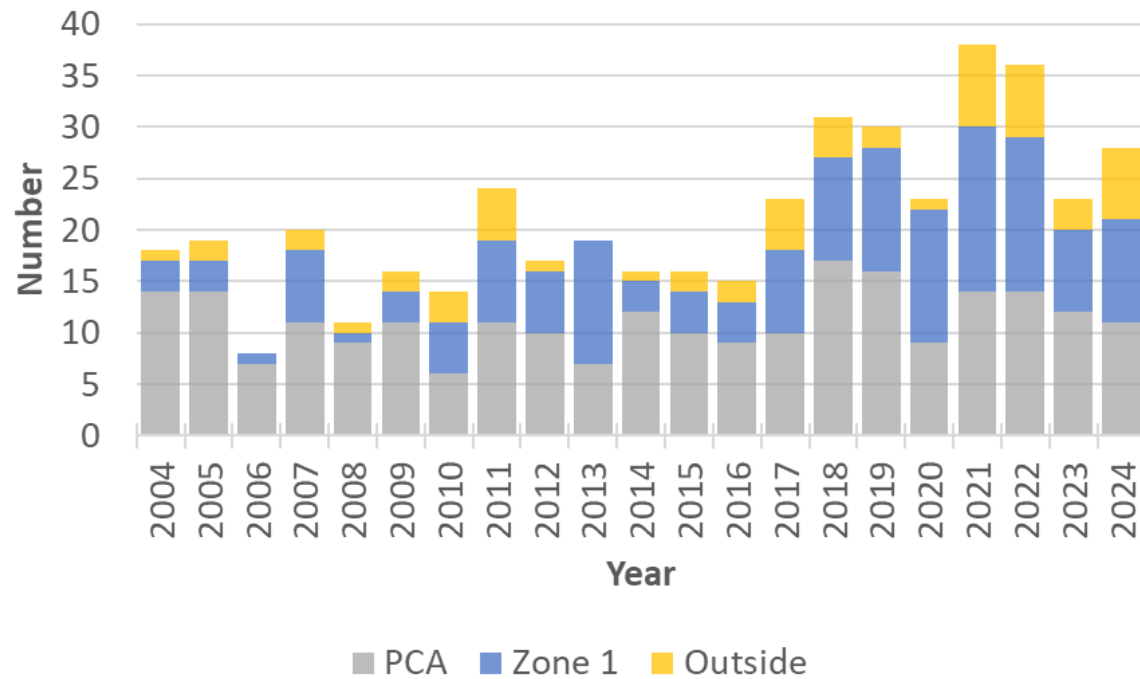
Mortality monitoring

KNOWN AND PROBABLE MORTALITIES (INDEPENDENT)

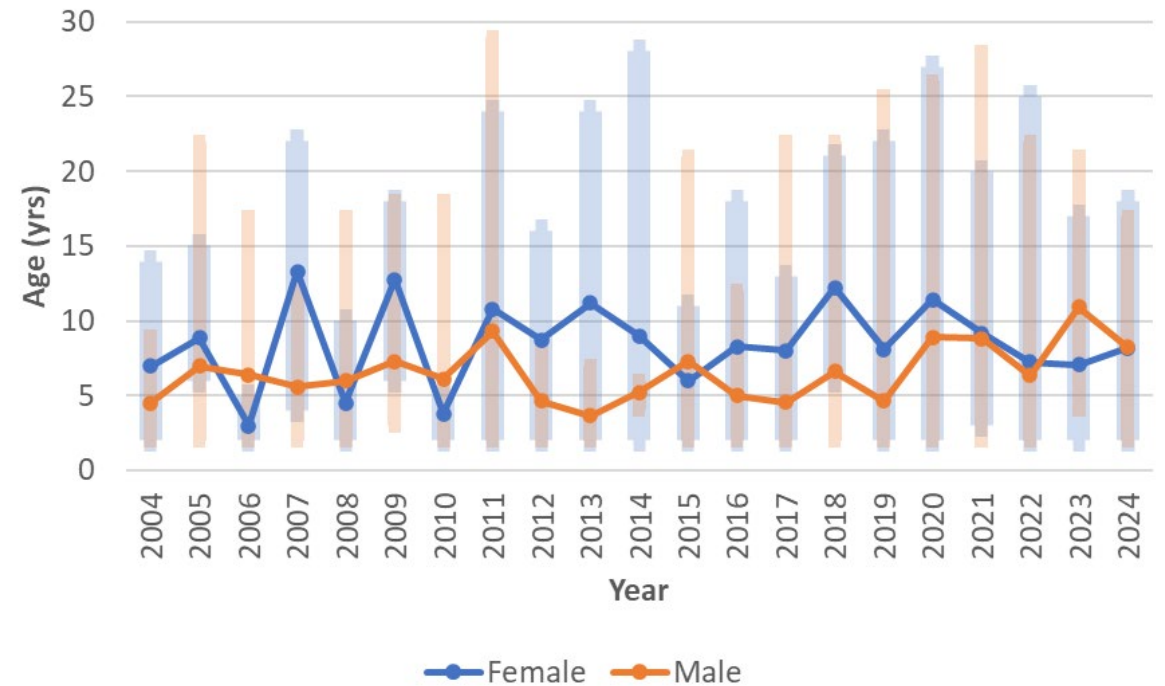
2024

34 total mortalities

Independent mortalities by zone



Age of independent mortalities

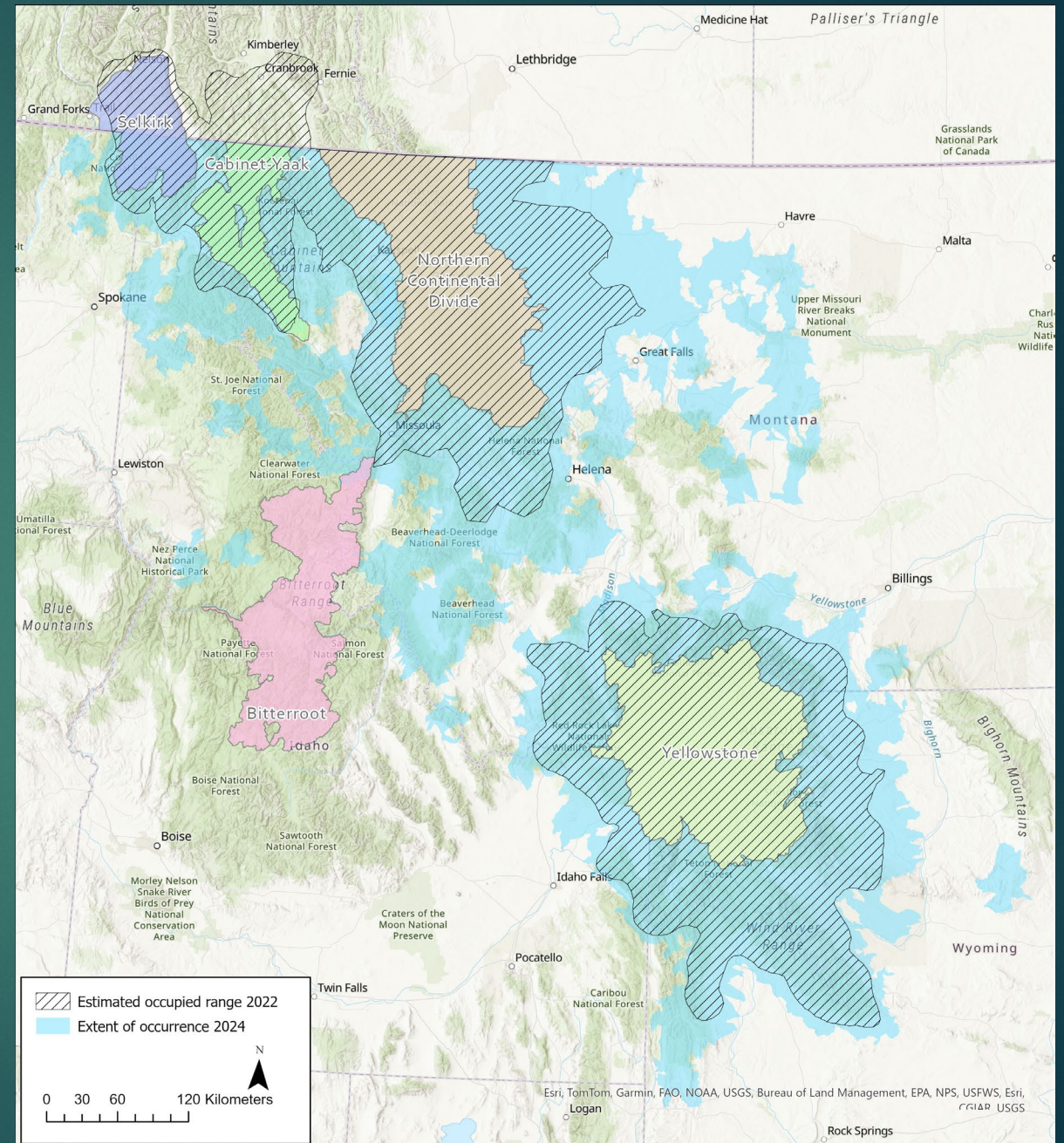


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Outliers & May Be Present

MBP VERSION 2024-10-17

- Adel Mountains
- Anaconda Mountains
- Beaverhead Mountains
- Bear Paw Mountains
- Big Belt Mountains
- Bull Mountains
- Boulder Mountains
- Highwood Mountains
- Judith River
- Little Belt Mountains
- Milk River
- North Moccasin Mountains
- Snowy Mountains



GYE Genetic Augmentation

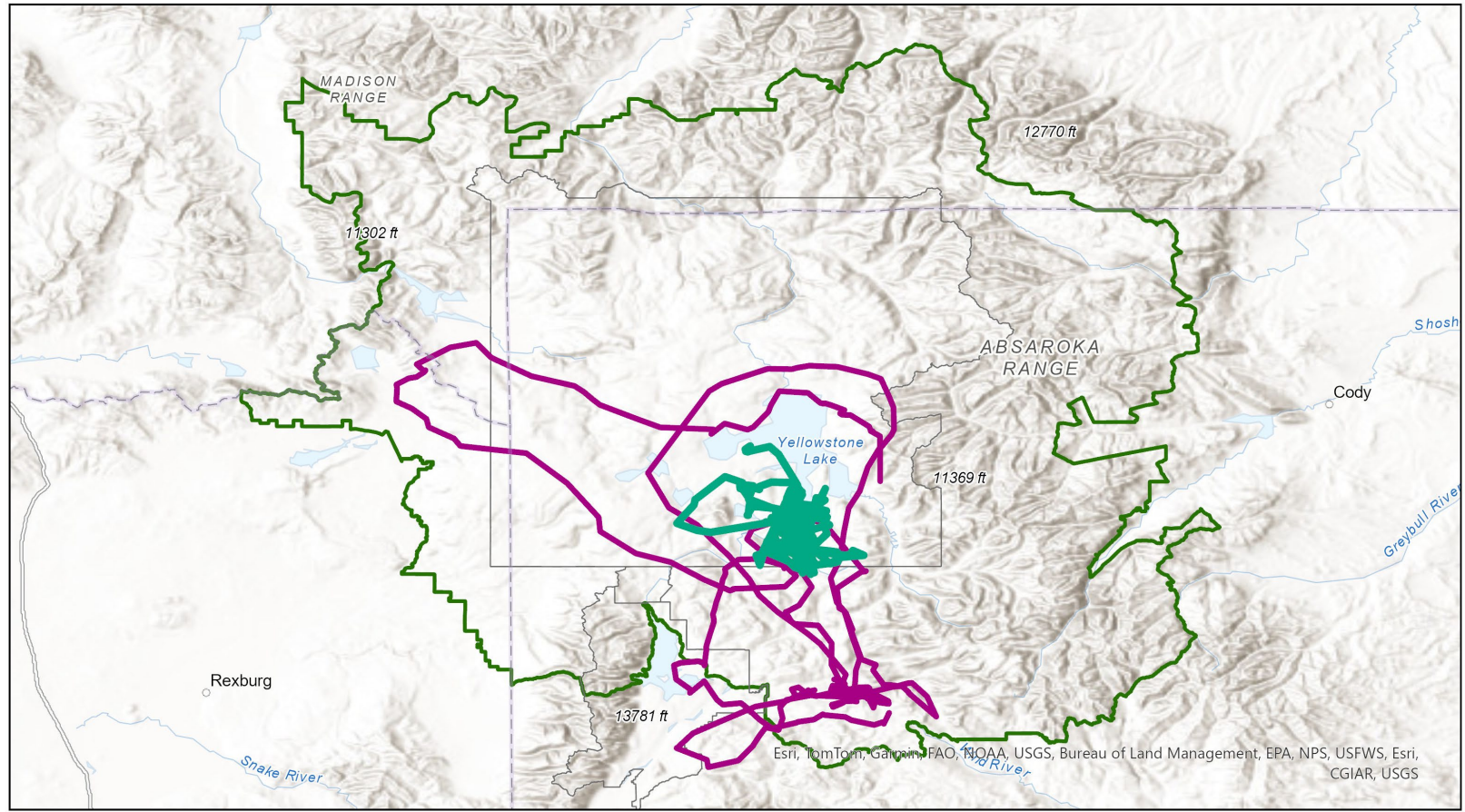
DETAILS AND STATUS

Female: Estimated 4 years old
Captured in Middle Fork 7/29/2024
Released NW of Dubois, WY
Distance moved ~350 mi

Male: Estimated 5 years old
Captured in Middle Fork 7/30/2024
Released near Yellowstone Lake
Distance moved ~310 miles



GYE Genetic Augmentation



Legend

BearID

— 1126

— 1129

□ National Parks

▭ GYE Recovery Zone

54

Miles



Movements

As of 11/7/2024

MONITORING TEAM

Payton Adams (CSKT)
Cecily Costello (FWP)
Jamie Jonkel (FWP)
David Kemp (FWP)
Brandon Kittson (BFW)
Bruce Montgomery (FWP)
Lori Roberts (FWP)
Wesley Sarmento (FWP)
Justine Vallieres (FWP)
Milan Vinks (FWP)
John Waller (GNP)
Erik Wenum (FWP)
Chad White (FWP)
Kyle Yorke (FWP)

SPECIAL THANKS

Courtney Lockerby, Mackenzie Taylor, Eli Hampson, Eric Graham, Brad Balis, Daniel McHugh, Jack Austin, Erin Fenger, Sarah Zielke, Kari Kingery, Paden Alexander, Steven Cross, Susan Clothier, Justin Gude, Ken McDonald, Ben Jimenez, Rory Trimbo, Morgan Vance, Mark Haroldson, Jennifer Fortin-Noreus, Hilary Cooley, Kraig Glazer, Rob Cherot, Ken Justus, Joe Rahn, Nathan Reiner, Rob Davies, Mark Ruby, Scott Snelson, Michael Muñoz, Chris Martin, Jim Dahlstrom, Kristine Simpson, Neil Cadwell, Two Bear Air, Jim Pierce, and Red Eagle Aviation.